

REMARKS

Claims 2-8 and 11-16 are pending in the present application. Claims 6-8 and 11-13 have been amended. Claims 2, 3, 6-8, and 11-13 are independent claims. The Examiner is respectfully requested to reconsider the outstanding rejections in view of the above amendments and following remarks.

Allowable Subject Matter

It is gratefully acknowledged that the Examiner has indicated that claims 2, 4, and 5 have been allowed.

Prior Art Rejections

Claims 3, 6, 7, 12, 15, and 16 stand rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent No. 5,926,133 to Green, Jr. (hereafter "Green") in view of U.S. Patent Application Publication No. 2003/0161411 to McCorkle et al. (hereafter "McCorkle"). Claims 8, 11, and 13 stand rejected under § 103(a) as being unpatentable over Green and McCorkle, and further in view of U.S. Patent No. 6,826,394 to Raith et al. (hereafter "Raith"). Claim 14 stands rejected under § 103(a) as being unpatentable over Green and McCorkle, and further in view of U.S. Patent No. 6,298,050 to van Heeswyk et al. (hereafter "van Heeswyk") and U.S. Patent No. 5,654,979 to Levin et al. (hereafter "Levin").

These rejections are respectfully traversed.

Independent Claim 3:

Independent claim 3 recites, *inter alia*, the following:

“the mobile station side transmission part includes a special code generation part to generate a **special code of a direct-current component**, and a spread modulation part to perform spread modulation of an information signal by using the special code generated by the special code generation part,” and

“the mobile station side transmission part generates the special radio wave signal of high power spectrum density by **performing spread modulation** of the information signal by **using the special code of the direct-current component**”

In page 3 of the current Office Action, the Examiner admits that the aforementioned features are not disclosed in Green. However, the Examiner asserts that McCorkle discloses such features, citing to paragraphs 0025, 0258, and 0261 as allegedly teaching “a special code generation part to generate a special code of a direct-current component” (see Office Action of 08/21/2009 at page 3). Applicants respectfully disagree. Paragraphs 0025 and 0261 of McCorkle do not mention anything regarding a direct-current component. As to paragraph 0258, this paragraph merely describes why the **data** should be pre-whitened before spread modulation. Specifically, paragraph 0258 warns that if the **data** is of a direct-current component (e.g., all-ones) before spread modulation, the resultant transmission signal could cause interference with narrowband users.

Applicant respectfully submits that there is no teaching or suggestion in McCorkle of using a spreading code of a direct-current component. In fact, paragraphs 0137 and 0252 of McCorkle expressly contemplate the use of codes that are typically used in direct sequence spread spectrum or CDMA systems. Furthermore, McCorkle illustrates a specific example of using the spread code of Fig. 24 (which is **not** of a direct-current component) for spread modulation of the data sequence of Fig. 23, resulting in the data modulated signal of Fig. 25 (see paragraphs 0263-64).

As such, Applicant respectfully submits that the cited references, taken separately or in obvious combination, fail to teach or suggest generating a special code of a direct-current component, or generating a special radio wave by performing spread modulation by using a special code of the direct-current component, as presently recited in claim 3.

Independent Claims 6, 7, 11 and 12:

As amended, independent claims 6 and 11 require a mobile station to “**switch** from a mode of generating a normal spread modulation signal for the direct sequence system to a mode of generating a special radio wave signal of **higher power spectrum density** than the normal spread modulation signal” in response to a requested initiation of a special call. These claims also require that the mobile station “generates the special radio wave signal of **same power** as power used in generating the normal spread modulation signal..., and of a **narrower band** than a band used in generating the normal spread modulation signal.”

Independent claims 7 and 12 recite similar features as described above.

In page 4 of the Office Action, the Examiner acknowledges that Green “fails to disclose wherein the mobile station transmission part generates the special radio wave signal of same power as power used in the direct system, and of a narrower band than a band used in the direct sequence system.” As such, Green cannot be relied upon to teach the presently claimed feature of switching from a mode of generating the normal spread modulation signal to a mode of generating a signal of same power and narrower band than the normal spread modulation signal.

The Examiner asserts that McCorkle teaches “wherein the mobile station side transmission part generates a special radio wave signal of same power as power used in the direct sequence system (paragraph 0212), and of a narrower band than a band used in the direct sequence system (paragraph 0212)” (see Office Action at page 4). Applicant respectfully disagrees. Paragraph 0212 of McCorkle teaches that McCorkle’s invention produces a “**very low** power spectral density” which is spread over “such a **broad** frequency band” that little energy appears in any narrowband user’s band. In fact, McCorkle’s abstract expressly discloses an “**ultra wide bandwidth**” spread spectrum communications system. This teaches away from producing a special radio wave signal of higher power spectrum density, by using the same power and narrower band, than direct sequence system.

Furthermore, McCorkle fails to teach or suggest anything with respect to **switching modes** of generating signals in order to **increase power spectrum density** as claimed. It is respectfully submitted that McCorkle does not even contemplate changing a mode of operation in order to decrease the band of the generated signal, while still using the same power, as required by the claims.

It is respectfully submitted that none of the other cited references remedy the deficiencies of Green and McCorkle regarding switching modes to generate a signal of higher power spectrum density than the normal spread modulation signal for a direct sequence system, by using the same power but a narrower band, as claimed.

Independent Claims 8 and 13:

As amended, independent claims 8 and 13 require a base station to receive both a **normal spread modulation signal** used in the direct sequence system and a **special radio wave signal** of higher power spectrum density from mobile stations, the special radio wave signal being generated of same power and narrower band than that used in generating the normal spread modulation signal. Also, these claims require the base station to **detect** whether the special radio wave signal was received, and **switch modes of extracting information** in response to the detection.

For reasons discussed above in connection with claims 6, 7, 11, and 12, none of the cited references teaches or suggests a mobile station switching between modes of operation of generating a normal spread modulation signal and a special radio wave signal as claimed. Accordingly, none of the cited references would not teach or suggest a base station capable of receiving both types of signals, detecting whether the special radio wave signal is received, and switching modes of extracting information in response to such detection. Therefore, the cited references, when taken separately or in obvious combination, fail to teach or suggest every feature recited in claims 8 and 13.

Claims are in Condition for Allowance:

At least for the reasons set forth above, Applicant respectfully submits that independent claims 3, 6-8, and 11-13 are in condition for allowance. Accordingly, claims 14-16 are allowable at least by virtue of their dependency on an allowable independent claim. Therefore, the Examiner is respectfully requested to reconsider and withdraw the outstanding § 103 rejections.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. Therefore, the Examiner is respectfully requested to reconsider the outstanding rejections and issue a Notice of Allowance in the present application.

Should the Examiner believe that any outstanding matters remain in the present application, the Examiner is respectfully requested to contact Jason W. Rhodes (Reg. No. 47,305) at the telephone number of the undersigned to discuss the present application in an effort to expedite prosecution.


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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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